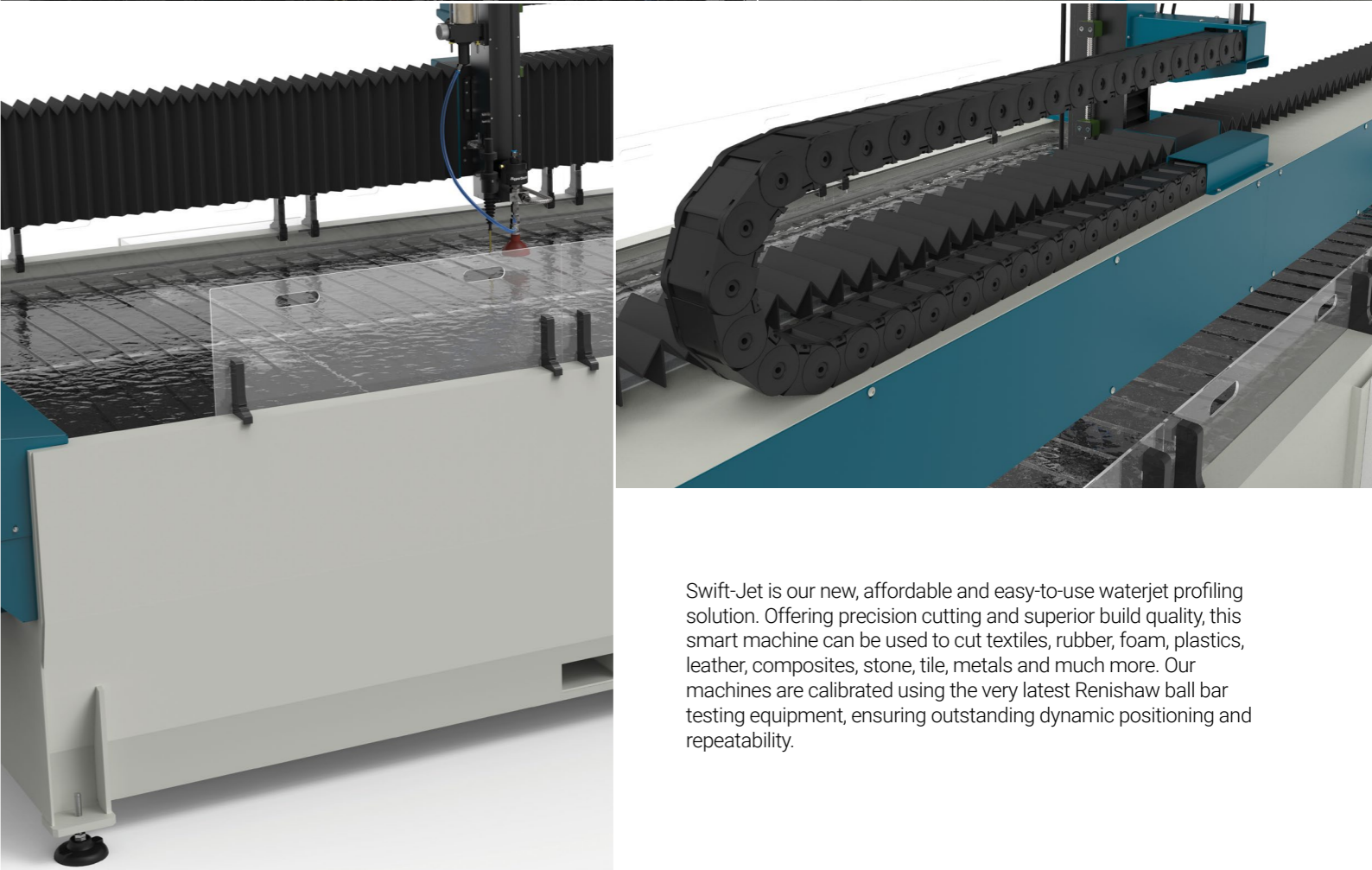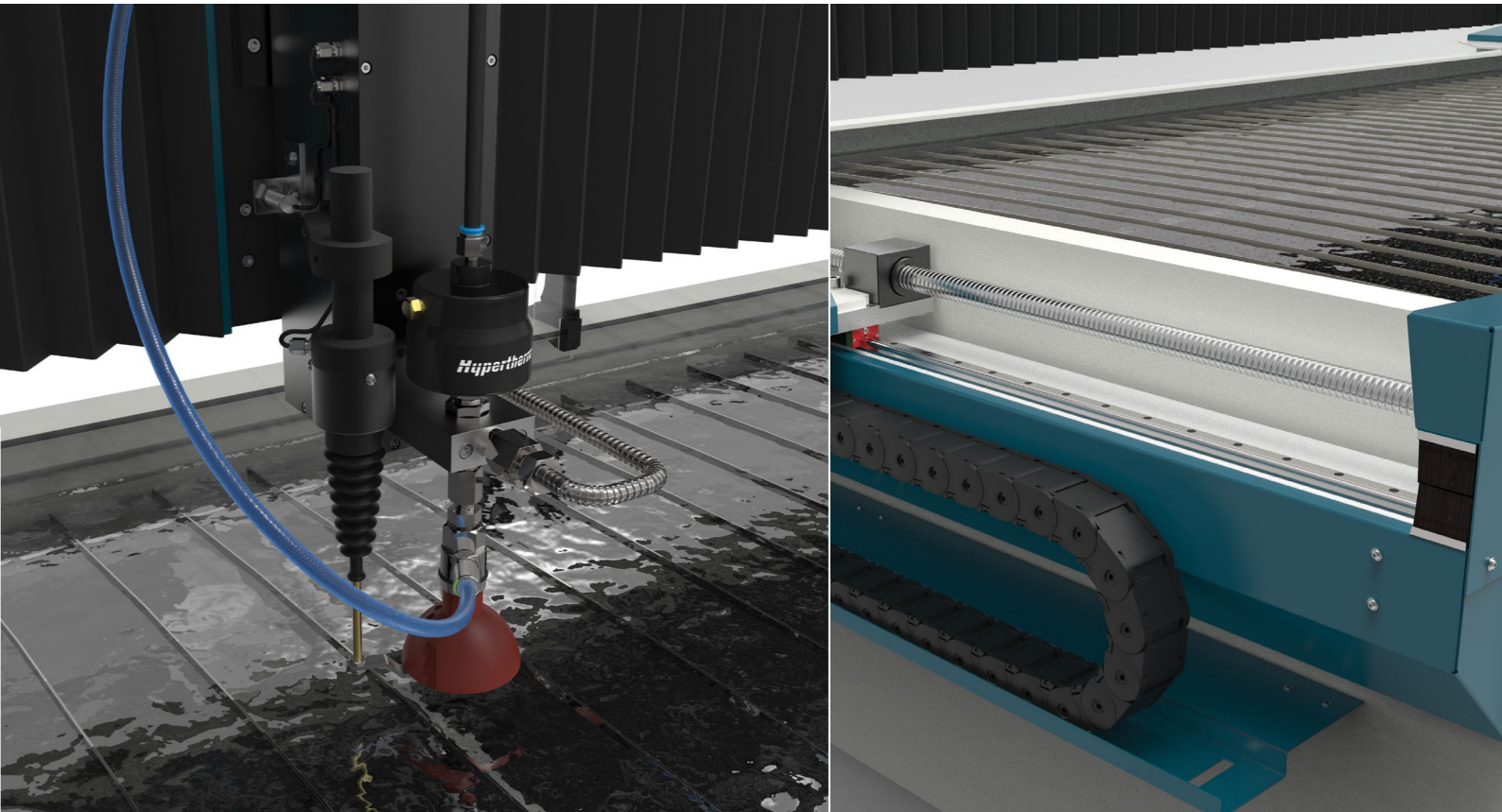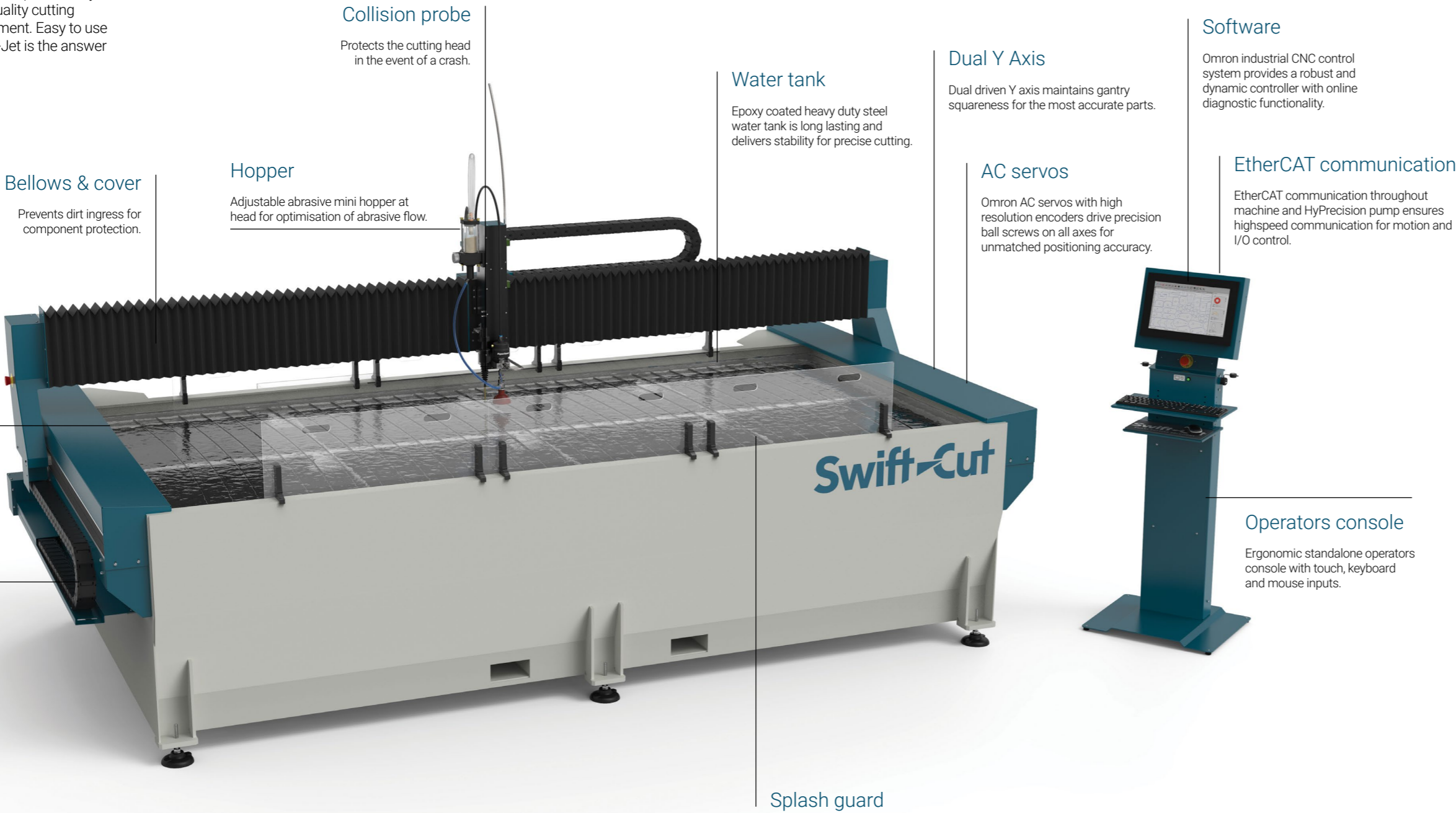# The Swift-Jet Range

Thanks to Swift-Cut, it's never been more affordable or achievable to own a water-jet cutting system. Waterjet technology produces excellent fine-feature cut quality with low edge taper, no heat-affected zone, a narrow kerf, and dross-free cutting.

It also offers the ability to process nearly any material and a thickness range capability unmatched by other cutting technologies.
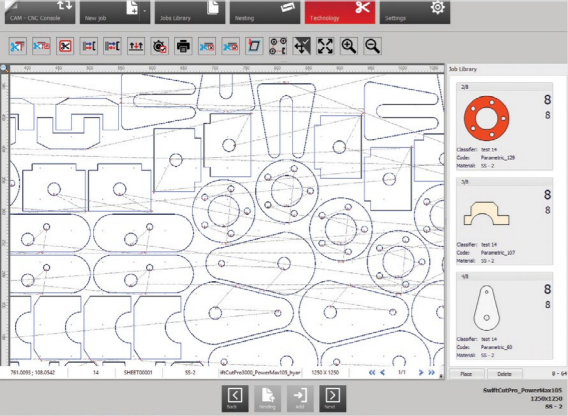
The Swift-Jet machine with its easy to use software, powered by Hypertherm HyPrecision pumps provides high quality cutting on a wide range of materials at a low-cost investment. Easy to use with exceptional aftercare and support, the Swift-Jet is the answer to affordable, high precision in-house cutting.

Collision probe
Protects the cutting head in the event of a crash.

Water tank
Epoxy coated heavy duty steel water tank is long lasting and delivers stability for precise cutting.

Dual Y Axis
Dual driven Y axis maintains gantry squareness for the most accurate parts.

Software
Omron industrial CNC control system provides a robust and dynamic controller with online diagnostic functionality.

Hopper
Adjustable abrasive mini hopper at head for optimisation of abrasive flow.

AC servos
Omron AC servos with high resolution encoders drive precision ball screws on all axes for unmatched positioning accuracy.

EtherCAT communication
EtherCAT communication throughout machine and HyPrecision pump ensures highspeed communication for motion and I/O control.

Bellows & cover
Prevents dirt ingress for component protection.

Linear rails
Precision linear rails on all axes provides repeatable positioning across the whole cutting bed.

Enclosed drag chains
Fully enclosed cable drag chains protect cables reducing potential downtime.

Operators console
Ergonomic standalone operators console with touch, keyboard and mouse inputs.

Splash guard

Swift-Jet is our new, affordable and easy-to-use waterjet profiling solution. Offering precision cutting and superior build quality, this smart machine can be used to cut textiles, rubber, foam, plastics, leather, composites, stone, tile, metals and much more. Our machines are calibrated using the very latest Renishaw ball bar testing equipment, ensuring outstanding dynamic positioning and repeatability.

SwiftCAM

Swift-Cut's easy to use software guarantees that anyone with a basic knowledge of computers will be capable of operating the Swift-Jet cutting system. Minimal training means the table will be operational almost immediately, maximising output from the start.

Automatic nesting
Automatically nests parts for economical sheet usage.

Automatic lead in/out
Software automatically applies lead ins/out for quicker programming.

Micro joints
Tabs to prevent parts moving whilst cutting.

Bridges
Continuous cutting between parts to reduce cycle times.

Common-line cut
Cut along shared edges of parts.

Sheet Alignment
Align the cutting path with misaligned sheets on the cutting bed.

Reference points
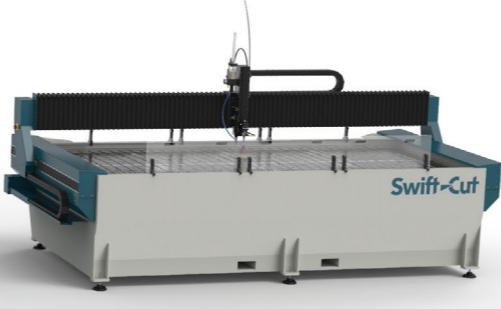User configurable reference points for jig fixtures.

Cut Quality
5 cut quality modes from fine to rough.

Parametric shape library
Over 80 configurable shapes.

Part in part nesting
Nest parts in scrap areas to fully utilise the sheet.

Customisable cutting rules
Optimise cutting parameters for best cutting performance.

Toolsets
Pre-programmed toolsets for common materials.

Customisable toolsets
Modify or create toolsets for new materials.

Job reports
Export job reports displaying scrap percentage and cutting times.

3D Cut Simulation
Play a 3D machine simulation of the cutting operation.

3D part preview
Preview the part in 3D before cutting.

Available in 2 sizes

SJ1500
1525mm x1525mm
cutting area (5' x 5')

SJ3000
1525mm x 3050mm
cutting area (5' x 10')

Optional Extras

Water Softener and Boost Pump

Reverse Osmosis System

Water only cutting head

Standard tool kit

Benefits of Water jet cutting

- No heat ingress into material
- Precise repeatable cuts
- Can cut a range of materials including metals, stone, plastics, wood and foam
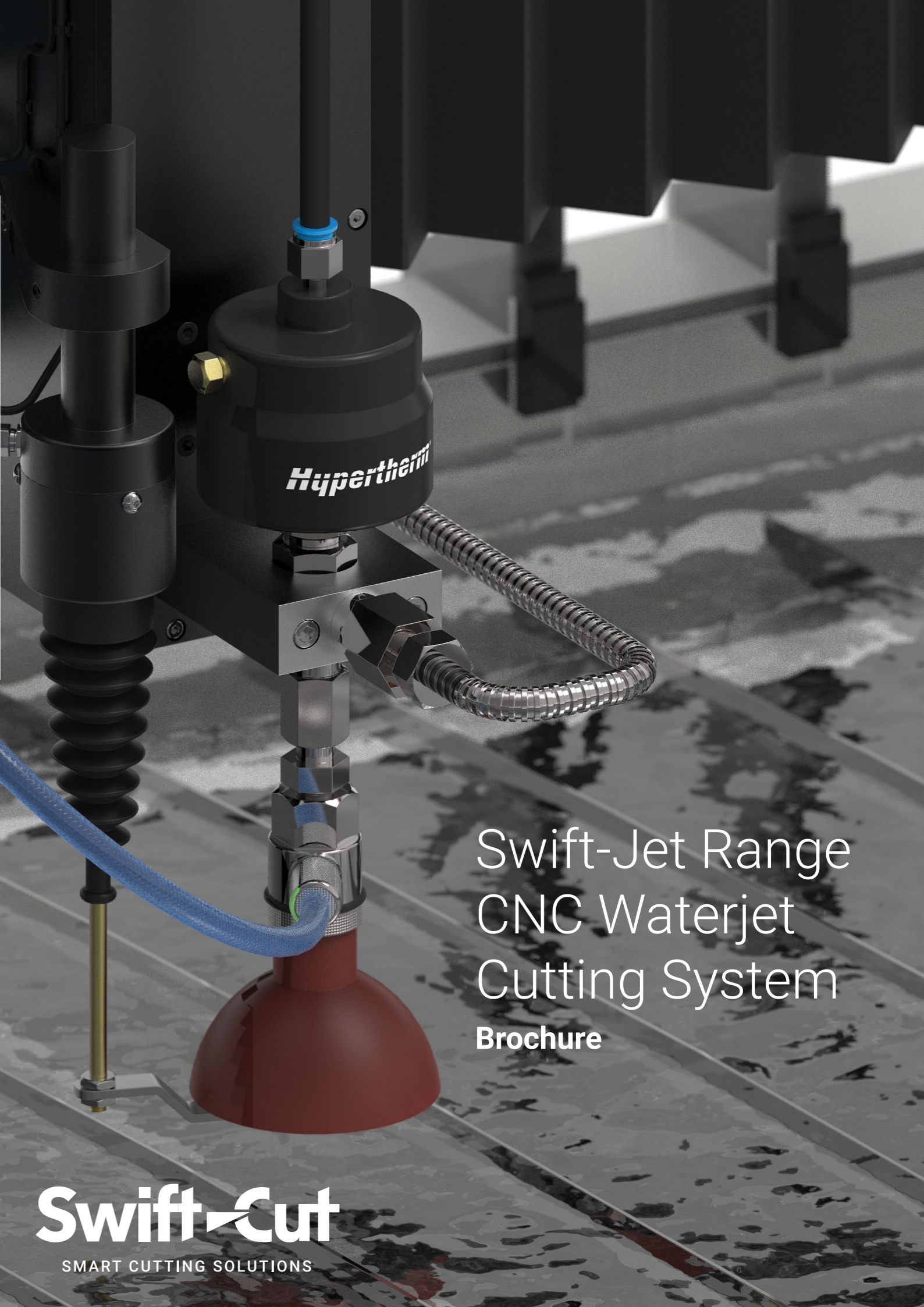- Weld ready parts

Machine Performance

Maximum traverse speed	Maximum Z clearance	Positional accuracy	Tank Depth
15m/min (590 ipm)	220mm (8.5")	0.0150mm (0.001")	840mm (33")

Pump Options

Source: Hypertherm

Model	Power	Pressure	Max. output flow	Max. orifice size
Echion 30	30 hp (22.4 kw)	60,000 psi (4100 bar)	2.3 l/min (0.6 gpm)	0.28mm (0.011")
Echion 50	50 hp (37.3 kw)	60,000 psi (4100 bar)	3.8 l/min (1.0 gpm)	0.35mm (0.014")

For more information contact
swift-cut.com

Swift-Jet Range CNC Waterjet Cutting System

Brochure